USDA Secretary Mike Johanns
Nov 3, 2005 Listening Session
Eastern Washington University

Problem or opportunity
Saving the family farm before they are gone (NOW)

Agricultural "excess" residue to energy: reduce cost and increase profits

- Reduce tillage/direct seeding- (reduces soil carbon release)
  - Also reduces fuel consumption (reduce carbon emissions)
- Reduce fossil fuel produced fertilizer needs (reduce carbon emissions)
- Increase soil carbon storage

Multiple carbon credits for sequestration, storage and release avoidance
If big business - industry figures out the potential and the current crisis family farms are in, there will be a wholesale marketing by banks holding thousand of family farms in excessive debt to large corporations offering cash.

Emphasis on numerous farm community based cellulose gasification systems
Bio-basedrenewable energy and products facilities
(On farm and mega regional plants are not the answer)

- Produce hydrogen and methane
  - for direct use in energy production at site
  - market gas to other users local or via gas pipeline in area
  - potential to convert gas to liquid fuels
  - co-gen heat available for
    - steam & electrical production
    - renewable heat and energy for other bio-mass energy and products
    - bio-base products form straw and gas
      - construction – engineered composite materials
      - bio-chemical
        - plastics
        - resins
        - fertilizers
        - pharmaceuticals

Carbon credits for renewable carbon neutral energy production

Other benefits
reduce demand need for increased transmission capacity
decentralize production and transmission – greatly reduces potential terrorism potential
reduces dependence on foreign fossil fuel energy

Oil seed alternate crops in rotation.

- Diversify crops – reduces disease and insect problems due to monoculture wheat

Canola acts as antifungal fumigant needed in direct seeding
Canola tap root factures soil compaction layers increasing potential rooting depth and water holding capacity

Potential to use gasification system for municipal clean green, solid waste and waste water treatment, creating sustainable communities

Potential Concerns
Need to prevent typical energy market – big business model of centralized monopoly and control.
Promote entrapranueal businesses that values farmers and farm communities for long term success and sustainability over short term high profit returns.

Similar opportunities in forest fuel load reduction needs for fire prevention on federal, state, industrial, tribal and private lands.

Creation of hundreds of thousands of jobs in fuel handling with market value to renewable energy production.

Technology is available that works now, problem is having working commercial sized facilities that banks – regular loan institutions can be realatively assured of success. Venture capitalists are interested based upon high interest and controlling interests in all phases of production. These venture capitalist seem to have no concern about the producer or the rural community – profit i.e. large profit is the only driver.
Farm bill needs:
Federal or state revolving loan programs would be the solution for the short run until business models are proven at which point any bank would be more then willing to invest into strong rural communities with a bright new future based in natural resource management.

From: Tim King, Carbon Technology Transfer Center
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Over 15 years ago as a USDA employee I started developing forest and farm carbon sequestration projects funded voluntarily by the energy industry. In 1995 I started looking more intensely into renewable energy options. In 2000-2001 political issues created an opinion within USDA to pull out of any programs which seemed related in any way to the Kyoto accord. The agency and I decided the best solution was my early retirement. I have maintained my efforts as a private business and USDA TSP. I still believe USDA should serve a key role in providing assistance and leadership in managing natural resources to develop renewable energy while assuring sustainable farms and forests.

The Carbon Center: CTTC
Carbon Cycle - Climate Cycle - Life Cycle - Energy Cycle
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